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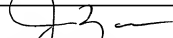
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Substitute for Form 1449A/PTO		Complete if Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)  		Application Number	TECH CENTER 15082300 09/85/15082300
		Filing Date	May 14, 2001
		First Named Inventor	Lex M. Cowsert et al
		Group Art Unit	1645
		Examiner Name	
Sheet 1 of 7	Attorney Docket Number	ISPH-0576 (ISMK-0005)	

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
J3 ↓	AA	6,261,840	B1	L. Cowsert	07/17/2001	
	AB	5,726,027	B1	J. Olefsky	03/10/1998	
	AC	5,801,154	B1	E. Baracchini	09/01/1998	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>4</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>2</sup> (if known)				
	AL	WO	WO01/53528	A1	L. Cowsert	07/26/2001		
	AM	WO	WO97/32595	A1	J. Olefsky	09/12/1997		

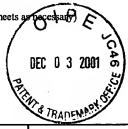
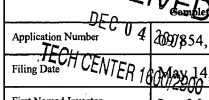
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<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

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Substitute for Form 1449 A/PTO			<div style="text-align: center;">  </div>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT			<div style="text-align: center;">  </div>	
(use as many sheets as necessary)			Application Number: 2007854,883 Filing Date: May 14, 2001 First Named Inventor: Lex M. Cowser et al Group Art Unit: 1645 Examiner Name: Attorney Docket Number: ISPH-0576 (ISMK-0005)	
Sheet	2	of	7	

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS				
Examiners Initials <sup>1</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>	
J3	AR	C. ARREGUI et al, "Impaired Integrin-mediated Adhesion and Signaling in Fibroblasts Expressing a Dominant-negative Mutant PTP1B", J. Cell Biol., 143(3):861-873 (November 2, 1998)		
	AS	J. BALSAMO et al, "The Nonreceptor Protein Tyrosine Phosphatase PTP1B Binds to the Cytoplasmic Domain of N-Cadherin and Regulates the Cadherin-Actin Linkage", J. Cell Biol., 143(2):523-532 (October 19, 1998)		
	AT	A. BRANCH, "A Good Antisense Molecule is Hard to Find", TIBS, 23:45-50 (February, 1998)		
	AU	S. BROWN-SHIMER et al, "Effect of Protein Tyrosine Phosphatase 1B Expression on Transformation by the Human neu Oncogene", Cancer Res., 52:478-482 (1992)		
	AV	H. CHEN et al, "A Phosphotyrosyl Mimetic Peptide Reverses Impairment of Insulin-Stimulated Translocation of GLUT4 Caused by Overexpression of PTP1B in Rat Adipose Cells", Biochemistry, 38(1):384-389 (1999)		
	AW	H. CHEN et al, "Protein-Tyrosine Phosphatases PTP1B and Syt Are Modulators of Insulin-stimulated Translocation of GLUT4 in Transfected Rat Adipose Cells", J. Biol. Chem., 272(12):8026-8031 (March 21, 1997)		
	AX	J. CHERNOFF et al, "Cloning of a cDNA for a Major Human Protein-Tyrosine-Phosphatase", Proc. Natl. Acad. Sci. USA, 87:2735-2739 (April, 1990)		
	AY	S. CROOKE, "Basic Principles of Antisense Therapeutics" in Antisense Research and Application, Chapter 1, pp. 1-50 (1998)		

Examiner Signature: 	Date Considered: 10/10/01
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT			Applicant's Number	09/854,883	
(use as many sheets as necessary)			Filing Date	May 10, 2001	
			First Named Inventor	Lex M. Cowser et al	
			Group Art Unit	1645	
			Examiner Name		
Sheet	3	of	7	Attorney Docket Number	ISPH-0576 (ISMK-0005)

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JZ	AZ	R. CRYSTAL, "Transfer of Genes to Humans: Early Lessons and Obstacles to Success", Science, 270:404-410 (1995)	
	AAR	S. DESMARAJIS et al, "Inhibition of Protein Tyrosine Phosphatases PTP1B and CD45 by Sulfotyrosyl Peptides", Arch. Biochem. Biophys., 354(2):225-231 (June 15, 1998)	
	AAS	M. ELCHEBLY et al, "Increased Insulin Sensitivity and Obesity Resistance in Mice Lacking the Protein Tyrosine Phosphatase-1B Gene", Science, 283:1544-1548 (March 5, 1999)	
	AAT	D. FERBER, "Cell Biology: New Clues Found to Diabetes and Obesity", Science, 283(5407):1423-1425 (March 5, 1999)	
	AAU	T. FRIEDMANN, "Overcoming the Obstacles - Treating Disease by Providing Needed Genes Remains a Compelling Idea, But Clinical and Basic Researchers Still Have Much to do Before Gene Therapy Can Live Up to its Promise", Scientific American, pp. 96-101 (June, 1997)	
	AAV	B. GOLDSTEIN et al, "Regulation of the Insulin Signalling Pathway by Cellular Protein-Tyrosine Phosphatases", Molecular and Cellular Biochemistry, 182:91-99 (1998)	
↓	AAW	S. HAM et al, "Selective Inactivation of Protein Tyrosine Phosphatase PTP1B by Sulfone Analogue of Naphthoquinone", Bioorganic & Medicinal Chemistry Letters, 9:185-186 (1999)	

Examiner Signature	<i>J. Z...</i>	Date Considered	10/10/02
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			Filing Date	May 14, 2001
			First Named Inventor	Lex M. Cowser et al
			Group Art Unit	1645
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Sheet	4	of	Attorney Docket Number	
			ISPH-0576 (ISMK-0005)	

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83	AAX	A. HASSID et al, "Antisense Oligonucleotides Against Protein Tyrosine Phosphatase 1B Increase Focal Adhesion Protein Phosphorylation and Migration in Rat Aortic Smooth Muscle Cells", in Supplement to Circulation, Journal of the American Heart Association, Abstracts from the 71 <sup>st</sup> Scientific Sessions, Dallas Convention Center, Dallas, Texas, Supplement 1, Abstract No. 1733 (November 8-11, 1998)	
	AAV	S. HUANG et al, "Antisense to Protein Tyrosine Phosphatase 1B Increases Tyrosine Phosphorylation of Focal Adhesion Protein in Aortic Smooth Muscle Cells of Rats", FASEB Journal, 12(4):A188, Abstract No. 1099 (March, 1998)	
	AAZ	W. JAMES, "Towards Gene-Inhibition Therapy: A Review of Progress and Prospects in the Field of Antiviral Antisense Nucleic Acids and Ribozymes", Antiviral Chemistry & Chemotherapy, 2(4):191-214 (1991)	
	BR	K. LAMONTAGNE et al, "Protein Tyrosine Phosphatase PTP1B Suppresses p210 bcr-abl-induced Transformation of Rat-1 Fibroblasts and Promotes Differentiation of K562 Cells", Proc. Natl. Acad. Sci. USA, 95:14094-14099 (November, 1998)	
	BS	S-R. LEE et al, "Reversible Inactivation of Protein-Tyrosine Phosphatase 1B in A431 Cells Stimulated with Epidermal Growth Factor", J. Biol. Chem., 273(25):15366-15372 (June 19, 1998)	
✓	BT	F. LIU et al, "Protein Tyrosine Phosphatase 1B Interacts with and is Tyrosine Phosphorylated by the Epidermal Growth Factor Receptor", Biochem J., 327:139-145 (1997)	

Examiner Signature	Date Considered
<i>Joe 3</i>	10/10/02

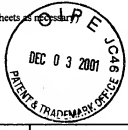
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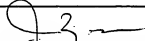
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(use as many sheets as necessary)			Filing Date	May 14, 2001	
			First Named Inventor	Lex M. Cowser et al	
			Group Art Unit	1645	
			Examiner Name		
Sheet	5	of	7	Attorney Docket Number	ISPH-0576 (ISMK-0005)

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J3	BU	F. LIU et al, "Protein Tyrosine Phosphatase 1B Negatively Regulates Integrin Signaling", Current Biology, 8:173-176 (January 19, 1998)		
	BV	F. LIU et al, "Transformation Suppression by Protein Tyrosine Phosphatase 1B Requires a Functional SH3 Ligand", Mol. Cell. Biol., 18(1):250-259 (January, 1998)		
	BW	N. MILNER et al, "Selecting Effective Antisense Reagents on Combinatorial Oligonucleotide Arrays", Nature Biotechnology, 15:537-541 (June, 1997)		
	BX	G. PALU et al, "In Pursuit of New Developments for Gene Therapy of Human Diseases", J. Biotech., 68:1-13 (1999)		
	BY	K. PIHL-CAREY, "Isis to Restructure as Crohn's Diseases Drug Fails in Phase III, in The Daily Biotechnology Newspaper, 10(239):1-2 (December 15, 1999)		
	BZ	P. ROLLER et al, "Potent Inhibition of Protein-Tyrosine Phosphatase-1B Using the Phosphotyrosyl Mimetic Fluoro-O-Malonyl Tyrosine (FOMT)", Bioorganic & Medicinal Chemistry Letters, 8:2149-2150 (1998)		
	BBR	A. SCHIEVELLA et al, "Protein Tyrosine Phosphatase 1B Undergoes Mitosis-specific Phosphorylation on Serine", Cell Growth & Differentiation, 4:239-246 (April, 1993)		
✓	BBS	J. SCHOFIELD et al, "Non-Viral Approaches to Gene Therapy", British Medical Bulletin, 51(1):56-71 (19950)		

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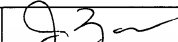
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Substitute for Form 1449 A/PTO			TECH CENTER 1600, 2000		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (use as many sheets as necessary)			Complete If Known		
			Application Number	09/854,883	
			Filing Date	May 14, 2001	
			First Named Inventor	Lex M. Cowser et al	
			Group Art Unit	1645	
			Examiner Name		
Sheet	6	of	7	Attorney Docket Number	ISPH-0576 (ISMK-0005)

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93	BBT	B. SEELY et al, "Protein Tyrosine Phosphatase 1B Interacts with the Activated Insulin Receptor", Diabetes, 45:1379-1385 (October, 1996)		
	BBU	S. SELL et al, "Insulin-Inducible Changes in the Relative Ratio of PTP1B Splice Variants", Molecular Genetics and Metabolism, 66:189-192 (1999)		
	BBV	V. SHIFRIN et al, "Growth Factor-Inducible Alternative Splicing of Nontransmembrane Phosphotyrosine Phosphatase PTP-1B Pre-mRNA", J. Biol. Chem., 268(34):25376-25384 (December 5, 1993)		
	BBW	K. SKOREY et al, "How Does Alendronate Inhibit Protein-tyrosine Phosphatases", J. Biol. Chem., 272(36):22472-22480 (September 5, 1997)		
	BBX	M. TAING et al, "Potent and Highly Selective Inhibitors of the Protein Tyrosine Phosphatase 1B", Biochemistry, 38:3793-3803 (1999)		
	BBY	S. TAYLOR et al, "Potent Non-peptidyl Inhibitors of Protein Tyrosine Phosphatase 1B", Bioorganic & Medicinal Chemistry, 6:1457-1468 (1998)		
	BBZ	N. TONKS et al, "Characterization of the Major Protein-Tyrosine-Phosphatases of Human Placenta", J. Biol. Chem., 263(14):6731-6737 (May 15, 1988)		
	CR	N. TONKS et al, "Purification of the Major Protein-Tyrosine-Phosphatases of Human Placenta", J. Biol. Chem., 263(14):6722-6730 (May 15, 1988)		
↓	CS	I. VERMA et al, "Gene Therapy - Promises, Problems and Prospects", Nature, 389:239-242 (September 18, 1997)		

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			Filing Date	May 14, 2001	
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JZ	CT	Q. WANG et al, "Naphthalenebis[ $\alpha,\alpha$ -difluoromethylenephosphonates] as Potent Inhibitors of Protein Tyrosine Phosphatases", Bioorganic & Medicinal Chemistry Letters, 8:345-350 (1998)	
	CU	Q. WANG et al, "Mechanism of Inhibition of Protein-Tyrosine Phosphatases by Disodium Aurothiomalate", Biochemical Pharmacology, 54:703-711 (1997)	
	CV	J. WIENER et al, "Overexpression of the Tyrosine Phosphatase PTP1B is Associated with Human Ovarian Carcinomas", Am. J. Obstet. Gynecol., 170(4):1177-1183 (April, 1994)	
	CW	Z-J. YAO et al, "Structure-based Design and Synthesis of Small Molecule Protein-Tyrosine Phosphatase 1B Inhibitors", Bioorganic & Medicinal Chemistry, 6:1799-1810 (1998)	
	CX	Z-Y. ZHANG, "Protein-Tyrosine Phosphatases: Biological Function, Structural Characteristics, and Mechanism of Catalysis", Critical Reviews in Biochemistry and Molecular Biology, 33(1):1-52 (1998)	
	CY	L. COWSERT et al, "Antisense Modulation of PTP1B Expression", U. S. Patent Application No. 09/629,644, filed July 31, 2000	

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